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Alameda County Health Care Services Agency
Environmental Protection Division
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

Attention: Mr. Larry Seto, Senior Hazardous Materials Specialist

Subject: 2415 Mariner Square Drive
Alameda, California
FIRST QUARTER 2000 GROUNDWATER SAMPLING

Dear Mr. Seto:

Earth Systems Consultants Northern California (ESCNC) is submitting this report which describes the first quarter 2000 groundwater sampling and analysis at the subject site (Figure 1).

Groundwater Sampling

On March 15, 2000, Blaine Tech Services measured the depth to groundwater in monitoring wells MW-1 through MW-5, MW-6A, and MW-7 through MW-10. Blaine Tech Services personnel then purged and sampled all wells, except MW-1, MW-7 and MW-8 since they have been removed from the sampling schedule by ACHCSA. The wells were purged of at least three well casing volumes of water and allowed to recharge to at least 80% prior to collecting samples. During purging, it was noted that wells MW-5, MW-6A and MW-10 contained sheen. Samples were collected with new disposable bailers. Purge water was stored in labeled 55-gallon drums and stored at the subject site. Well monitoring forms are included in Attachment A.

Groundwater elevations across the site ranged from 7.93 to 11.85 feet above mean sea level with an average elevation of 10.56 feet. The average groundwater elevation during the first quarter 2000 is 1.52 feet higher than during the fourth quarter 1999. The groundwater flow direction was toward the southeast with a gradient ranging from 0.004 to 0.013 ft/ft (21 to 69 ft/mile). Groundwater elevations are summarized in Table 1. The groundwater gradient map is shown on Figure 2.

The groundwater samples were delivered under chain of custody protocol to Entech Analytical Labs, Inc. (ELAP #2346). The samples from wells MW-2 through MW-5, MW-6A, MW-9, and MW-10 were analyzed for total petroleum hydrocarbons as gasoline, diesel, and motor oil (TPHg, TPHd, and TPHmo, respectively) using EPA methods 3510/3630/8015; and benzene,

Results

The analytical results of groundwater samples collected from wells MW-2 through MW-5, MW-6A, MW-9, and MW-10 indicated the following:

1. TPHg was detected in samples from wells MW-2 through MW-5, MW-6A, and MW-10 at concentrations ranging from 82 parts per billion (ppb) (MW-4) to 4,400 ppb (MW-6A).

2. TPHd was detected in samples from wells MW-2 through MW-5 at concentrations ranging from 110 ppb (MW-2) to 6,600 ppb (MW-5). The laboratory notes on these samples indicates that the results are within the TPHd quantitation range, however, the chromatographic pattern is not typical of diesel. The sample from MW-6A contained 6,700 ppb TPHd.

3. TPHmo was detected in samples from wells MW-3, MW-4, and MW-9 at concentrations of 440 ppb, 390 ppb, and 900 ppb, respectively. The laboratory notes on these samples indicates that the results are within the TPHmo quantitation range, however, the chromatographic pattern is not typical of motor oil. TPHmo was also detected in samples from wells MW-5, MW-6A, and MW-10 at concentrations of 4,200 ppb, 8,100 ppb, and 14,000 ppb, respectively.

4. BTEX concentrations were nondetectable or near detection limits in samples collected from wells MW-2 through MW-4, MW-6A, and MW-9. However, the detection limits for the sample from MW-6A were raised as a result of required sample dilution.

5. BTEX concentrations in wells MW-5, MW-7, and MW-10 were similar to historical levels.

6. MTBE was detected at a concentration of 6.7 ppb in the sample collected from well MW-4. The detection limits for MTBE in the samples collected from wells MW-6A and MW-10 were raised as a result of necessary sample dilution.

Conclusions

The average groundwater elevation has increased an average of 1.52 feet since the last sampling round on November 24, 1999. However, the groundwater flow direction is consistent toward the southeast.

As approved by ACHCSA, wells MW-1, MW-7, and MW-8 were not sampled. TPHg and BTEX concentrations were similar to or less than historical levels. The only detectable TPHd results that did not have the laboratory note stating that the chromatographic pattern was not typical of diesel were for wells MW-6A and MW-10. Therefore, the detectable TPHd in the remaining wells may or may not be diesel related. TPHmo was detected for the first time in MW-3, for the second consecutive time in well MW-5, and for the second time in well MW-9. However, the results for TPHmo in wells MW-3 and MW-9 have the note stating that the chromatographic pattern was not typical of motor oil. The only detectable MTBE was in well MW-4, and the concentration was the lowest historically.

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Recommendations

After completing four additional quarters of groundwater sampling with no significant increases in petroleum hydrocarbon concentrations, ESCNC recommends that the entire site be considered for closure. A closure request has been submitted for the residential parcel at the site. The residential parcel has received conditional closure.

If you have any questions regarding this report, please call the undersigned at your earliest convenience.

Very truly yours,

EARTH SYSTEMS CONSULTANTS
Northern California

Jeanne Buckthal
Staff Geologist

Gary Pischke, CEG 1501
Senior Geologist

JB/GP:sp Disk 001.3

Distribution: 1 to addressee
1 to Mr. John Beery

TABLE 1
Historical Groundwater Elevations
Mariner Square, Alameda, California

Well	Date	Top of Casing (feet above msl)	Depth to Water (feet)	Free Product Thickness (feet)	Groundwater Elevation (feet above msl)
MW-1	07/30/92	5.08	6.41	-	-1.33
	07/31/92	5.08	6.41	-	-1.33
	08/03/92	5.08	6.50	-	-1.42
	08/05/92	5.08	6.50	-	-1.42
	11/20/92	5.08	6.23	-	-1.15
	06/13/94	11.99	5.69	-	6.30
	09/27/94	11.99	5.64	-	6.35
	10/25/94	11.99	5.86	-	6.13
	06/28/96	11.99	5.34	-	6.65
	10/31/96	11.99	5.38	-	6.61
	09/30/97	11.99	5.08	-	6.91
	12/12/97	11.99	4.16	-	7.83
	02/18/98	11.99	2.97	-	9.02
	05/08/98	11.99	4.55	-	7.44
	06/24/99	11.99	4.75	-	7.24
	08/10/99	11.99	4.82	-	7.17
	09/09/99	11.99	4.94	-	7.05
	11/24/99	11.99	5.20	-	6.79
	03/15/00	11.99	3.92	-	8.07
MW-2	07/30/92	8.30	5.98	-	2.32
	07/31/92	8.30	6.07	-	2.23
	08/03/92	8.30	6.11	-	2.19
	08/05/92	8.30	6.18	-	2.12
	11/20/92	8.30	6.42	-	1.88
	06/13/94	15.21	5.92	-	9.29
	09/26/94	15.21	6.51	-	8.70
	10/25/94	15.21	6.67	-	8.54
	06/28/96	15.21	5.68	-	9.53
	10/31/96	15.21	6.37	-	8.84
	09/30/97	15.21	6.17	-	9.04
	12/12/97	15.21	5.18	-	10.03
	02/18/98	15.21	3.96	-	11.25
	05/08/98	15.21	4.82	-	10.39
	06/24/99	15.21	4.69	-	10.52
	08/10/99	15.21	4.72	-	10.49
	09/09/99	15.21	5.31	-	9.90
	11/24/99	15.21	5.83	-	9.38
	03/15/00	15.21	4.00	-	11.21

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Well	Date	Top of Casing (feet above msl)	Depth to Water (feet)	Free Product Thickness (feet)	Groundwater Elevation (feet above msl)
MW-3	07/30/92	7.28	4.97	-	2.31
	07/31/92	7.28	5.05	-	2.23
	08/03/92	7.28	4.43	-	2.85
	08/05/92	7.28	5.06	-	2.22
	11/20/92	7.28	5.27	-	2.01
	06/13/94	14.19	4.91	-	9.28
	09/27/94	14.19	5.29	-	8.90
	10/25/94	14.19	5.42	-	8.77
	06/28/96	14.19	4.69	-	9.50
	10/31/96	14.19	5.24	-	8.95
	09/30/97	14.19	5.04	-	9.15
	12/12/97	14.19	4.32	-	9.87
	02/18/98	14.19	2.97	-	11.22
	05/08/98	14.19	3.85	-	10.34
	06/24/99	14.19	2.95	-	11.24
	08/10/99	14.19	3.01	-	11.18
	09/09/99	14.19	4.10	-	10.09
	11/24/99	14.19	4.60	-	9.59
	03/15/00	14.19	3.00	-	11.19
MW-4	07/30/92	7.05	4.81	-	2.24
	07/31/92	7.05	4.88	-	2.17
	08/05/92	7.05	4.96	-	2.09
	11/20/92	7.05	5.13	-	1.92
	06/13/94	13.95	4.50	-	9.45
	09/27/94	13.95	5.39	-	8.56
	10/25/94	13.95	5.55	-	8.40
	06/28/96	13.95	4.25	-	9.70
	10/31/96	13.95	5.05	-	8.90
	09/30/97	13.95	4.73	-	9.22
	12/12/97	13.95	3.65	-	10.30
	02/18/98	13.95	2.38	-	11.57
	05/08/98	13.95	3.47	-	10.48
	08/10/99	13.95	4.90	-	9.05
	09/09/99	13.95	3.99	-	9.96
	11/24/99	13.95	4.25	-	9.70
	03/15/00	13.95	2.50	-	11.45

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Well	Date	Top of Casing (feet above msl)	Depth to Water (feet)	Free Product Thickness (feet)	Groundwater Elevation (feet above msl)
MW-5	07/30/92	7.68	5.30	-	2.38
	07/31/92	7.68	5.42	-	2.26
	08/03/92	7.68	5.40	-	2.28
	08/05/92	7.68	5.47	-	2.21
	11/20/92	7.68	5.74	-	1.94
	06/13/94	14.60	5.30	-	9.30
	09/26/94	14.60	5.82	-	8.78
	10/25/94	14.60	5.95	-	8.65
	06/28/96	14.60	5.04	-	9.56
	10/31/96	14.60	5.73	-	8.87
	09/30/97	14.60	5.45	-	9.15
	12/12/97	14.60	4.71	-	9.89
	02/18/98	14.60	3.10	-	11.50
	05/08/98	14.60	4.13	-	10.47
	06/24/99	14.60	3.65	-	10.95
	08/10/99	14.60	3.71	-	10.89
	09/09/99	14.60	4.51	-	10.09
	11/24/99	14.60	4.91	Sheen	9.69
	03/15/00	14.60	3.03	Sheen	11.57
MW-6	06/13/94	14.81	5.96	0.02	8.85
	09/27/94	14.81	5.90	0.03	8.91
	10/07/94	14.81	5.82	Sheen	8.99
	10/14/94	14.81	5.89	Sheen	8.92
	10/21/94	14.81	5.90	Sheen	8.91
	10/25/94	14.81	5.99	Sheen	8.82
	06/28/96	14.81	5.33	0.16	9.48
	10/31/96	14.81	5.17	0.02	9.64
	09/30/97	14.81	5.58	Sheen	9.23
	12/12/97	14.81	4.84	0.39	9.97
	02/18/98	14.81	3.70	0.55	11.11
	04/28/98	Well Destroyed			
MW-6A	08/10/99	15.22	4.96	Sheen	10.26
	09/09/99	15.22	4.35	Sheen	10.87
	11/24/99	15.22	4.90	Sheen	10.32
	03/15/00	15.22	3.61	Sheen	11.61

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Well	Date	Top of Casing (feet above msl)	Depth to Water (feet)	Free Product Thickness (feet)	Groundwater Elevation (feet above msl)
MW-7	09/27/94	13.61	5.95	-	7.66
	10/25/94	13.61	6.09	-	7.52
	06/28/96	13.61	5.42	-	8.19
	10/31/96	13.61	5.90	-	7.71
	09/30/97	13.61	5.71	-	7.90
	12/12/97	13.61	4.58	-	9.03
	02/18/98	13.61	3.21	-	10.40
	05/08/98	13.61	4.49	-	9.12
	06/24/99	13.61	4.78	-	8.83
	08/10/99	13.61	4.76	-	8.85
	09/09/99	13.61	5.14	-	8.47
	11/24/99	13.61	5.29	-	8.32
	03/15/00	13.61	3.65	-	9.96
MW-8	09/27/94	12.64	6.06	-	6.58
	10/25/94	12.64	6.26	-	6.38
	06/28/96	12.64	6.00	-	6.64
	10/31/96	12.64	5.85	-	6.79
	09/30/97	12.64	5.60	-	7.04
	12/12/97	12.64	4.87	-	7.77
	02/18/98	12.64	3.80	-	8.84
	05/08/98	12.64	5.30	-	7.34
	06/24/99	12.64	5.42	-	7.22
	08/10/99	12.64	5.48	-	7.16
	09/09/99	12.64	5.50	-	7.14
	11/24/99	12.64	5.89	-	6.75
	03/15/00	12.64	4.71	-	7.93
MW-9	09/26/94	14.92	5.88	-	9.04
	10/25/94	14.92	6.04	-	8.88
	06/28/96	14.92	5.14	-	9.78
	10/31/96	14.92	6.37	-	8.55
	09/30/97	14.92	5.59	-	9.33
	12/12/97	14.92	4.53	-	10.39
	02/18/98	14.92	3.12	-	11.80
	05/08/98	14.92	4.20	-	10.72
	06/24/99	14.92	3.45	-	11.47

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Well	Date	Top of Casing (feet above msl)	Depth to Water (feet)	Free Product Thickness (feet)	Groundwater Elevation (feet above msl)
MW-9 continued	08/10/99	14.92	3.56	-	11.36
	09/09/99	14.92	4.59	-	10.33
	11/24/99	14.92	4.72	-	10.20
	03/15/00	14.92	3.07	-	11.85
MW-10	08/10/99	14.91	4.55	Sheen	10.36
	09/09/99	14.91	5.08	Sheen	9.83
	11/24/99	14.91	5.30	Sheen	9.61
	03/15/00	14.91	4.12	Sheen	10.79

msl Mean Sea Level
\- None measured

TABLE 2
Groundwater Analytical Results -- Organics
Mariner Square, Alameda, California

Well	Date	TRPH	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	VOCs	Vinyl Chloride
MW-1	08/03/92	-	-	580	<5,000	<0.5	<0.5	<0.5	<0.5	-	-	-
	11/20/92	-	<50	600	<5,000	<0.5	<0.5	<0.5	<0.5	-	-	<2
	09/27/94	-	<50	530	<50	<0.3	<0.3	<0.3	<0.3	-	-	-
	06/28/96	-	<100	<50	<200	<0.5	<1.0	<1.0	<2.0	-	-	<0.5
	10/31/96	-	<100	93	<200	<0.5	<1.0	<1.0	<2.0	<10	-	<1.0
	09/30/97	-	120	<50	<200	4.7	<1.0	3.7	21	<10	-	<0.8
	12/12/97	-	<50	<50	<200	<0.5	<0.5	<0.5	<2.0	<5	-	<2
	02/18/98	-	<50	<50	<200	1.5	0.6	1.8	8	<5	-	<2
	05/08/98	-	<50	<50	<200	1.0	<0.5	0.7	5	<5	-	<2
	06/24/99	-	<50	<50	110	<0.50	<0.50	<0.50	<1.5	<5.0	-	<0.50
	09/09/99	Not Sampled										
	11/24/99	-	-	-	<250	-	-	-	-	-	-	-
	03/15/00	Not Sampled										
MW-2	08/03/92	-	-	2,200	<5,000	<0.5	6.5	3.2	5.3	-	-	-
	11/20/92	-	340	2,100	<5,000	<0.5	<0.5	<0.5	2.4	-	-	<2
	09/26/94	-	320	<50	240	<3.0	<3.0	<3.0	<3.0	-	-	-
	06/28/96 (1)	-	980	100 (2,3)	<200	0.5	<1.0	2.3	3.1	-	-	<0.5
	10/31/96	-	220	180	<200	<0.5	<1.0	<1.0	<2.0	<10	-	<1.0
	09/30/97	-	900	150 (2)	<200	0.8	<1.0	2	6.2	<10	-	<0.8
	12/12/97	-	360	<50	<200	1.1	<0.5	2.2	3	<5	-	<2
	02/18/98	-	90	<50	<200	<0.5	<0.5	1.1	2	<5	-	<2
	05/08/98	-	170	<50	<200	<0.5	<0.5	1.7	3	<5	-	<2
	06/24/99	-	<50	<50	<100	<0.50	0.66	<0.50	<1.5	<5.0	-	<0.50
	09/09/99	-	120	130	<100	<0.50	<0.50	<0.50	<0.50	<5.0	-	-
	11/24/99	-	770	260 (4)	<250	0.92	<0.50	2.7	3.4	<5.0	-	-
	03/15/00	-	91	110 (4)	<250	<0.5	<0.5	<0.5	<0.5	<5	-	-

TABLE 2
Groundwater Analytical Results -- Organics
Mariner Square, Alameda, California

Well	Date	TRPH	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	VOCs	Vinyl Chloride
MW-3	08/03/92	-	-	1,000	<5,000	<0.5	1	<0.5	2.4	-	-	-
	11/20/92	-	98	2,000	<5,000	<0.5	<0.5	0.9	1	-	-	<2
	09/27/94	-	<50	720	<50	<3.0	<0.3	<0.3	<0.3	-	-	-
	06/28/96	-	<100	120 (2)	<200	<0.5	<1.0	<1.0	<2.0	-	-	<0.5
	10/31/96	-	<100	160	<200	<0.5	<1.0	<1.0	<2.0	<10	-	<1.0
	09/30/97	-	<100	70	<200	0.8	<1.0	<1.0	3.3	<10	-	<0.8
	12/12/97	-	80	<50	<200	0.7	<0.5	0.7	4	9	-	<2
	02/18/98	-	60	<50	<200	<0.5	<0.5	<0.5	4	7	-	<2
	05/08/98	-	<50	<50	<200	0.5	<0.5	0.5	4	<5	-	<2
	06/24/99	-	<50	<50	<100	<0.50	1.1	<0.50	2.6	5.0	-	<0.50
	09/09/99	-	64	100	<100	<0.50	<0.50	<0.50	0.65	<5.0	-	-
	11/24/99	-	95	140 (4)	<250	<0.50	<0.50	<0.50	<0.50	<5.0	-	-
	03/15/00	-	88	350 (4)	440 (4)	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
MW-4	08/05/92	-	-	1,300	<5,000	16	2.6	0.6	2.7	-	-	9.0
	11/20/92	-	330	2,400	<5,000	31	5.2	0.7	2	-	-	13
	09/27/94	-	<50	890	<50	12	0.43	<0.3	<0.3	-	-	8.0
	06/28/96	-	180	170 (2,3)	<200	4	<1.0	<1.0	<2.0	-	-	2.5
	10/31/96	-	110	330	<200	6.2	<1.0	<1.0	<2.0	<10	-	4.3
	09/30/97	-	650	170 (2)	<200	3.9	<1.0	<1.0	<2.0	460	-	3.1
	12/12/97	-	260	<50	<200	4.9	0.9	<0.5	<2.0	320	-	3
	02/18/98	-	240	<50	<200	1.0	1.0	2.1	10	290	-	2
	05/08/98	-	90	<50	<200	0.5	0.5	0.8	5	30	-	<2
	08/10/99	-	93	270 (4)	320	0.59	1.4	<0.5	4.2	11	-	<0.5
	09/09/99	-	72	250	<100	<0.50	<0.50	<0.50	<0.50	25	-	-
	11/24/99	-	200	280 (4)	330 (4)	4.7	<0.50	0.68	<0.50	26	-	-
	03/15/00	-	82	300 (4)	390 (4)	1.2	<0.5	<0.5	<0.5	6.7	-	-

TABLE 2
Groundwater Analytical Results -- Organics
Mariner Square, Alameda, California

Well	Date	TRPH	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	VOCs	Vinyl Chloride
MW-5	08/03/92	-	-	2,200	<5,000	9	6	49	11	-	-	-
	11/20/92	-	4,800	1,500	<5,000	7.6	12	5.8	26	-	-	<2
	09/26/94	-	3,100	780	<500	7.9	11	8.7	14	-	-	-
	06/28/96	-	5,000	610 (2,3)	790	1.2	6.8	21	14	-	-	<0.5
	10/31/96	-	6,800	4,900	860	20	5.9	15	19	<10	-	<1.0
	09/30/97	-	9,000	4,100 (2)	520	35	5.3	36	32	12	-	<0.8
	12/12/97	-	3,400	90	<200	26	4.6	5.9	13	11	-	<2
	02/18/98	-	3,200	<50	<200	7.9	1.4	14	12	<5	-	<2
	05/08/98	-	3,900	<50	<200	8.0	22	19	10	<5	-	<2
	06/24/99	-	290	60	<100	48	8.8	8.6	33	<5.0	-	<0.50
	09/09/99	-	5,000	8,800	<100	32	16	20	14	12	-	-
	11/24/99	-	3,200	3,400 (4)	1,700	25	<2.5	15	10	<25	-	-
	03/15/00	-	1,400	6,600 (4)	4,200	4.7	6.9	3.5	2.4	<5.0	-	-
MW-6	05/25/93	-	460	2,700,000	-	<5.0	<5.0	<5.0	<5.0	-	-	<10
	9/27/94	-	1,100	9,900	3,200	<3.0	<3.0	<3.0	<3.0	-	-	<1.0
	06/28/96	Not Sampled--Sheen Present										
	09/30/97	Not Sampled--Sheen Present										
	12/12/97	-	21,000	1,900,000	43,000	5	<0.5	8	19	<50	-	<2
	02/18/98	-	70,000	<50	<200	20	20	20	70	<100	-	<2
	04/28/98	-	800	920	<200	<0.5	<0.5	<0.5	<2	<5	-	<2
	04/28/98	Well Destroyed										
MW-6A	08/10/99	-	770	5,400 (4)	3,900 (4)	1.7	<0.5	<0.5	1.9	<5.0	-	<0.5
	09/09/99	-	670	180,000	<5,000	<0.50	0.61	0.66	<0.50	<5.0	-	-
	11/24/99	-	29,000	7,900	11,000	<25	<25	<25	<25	<250	-	-
	03/15/00	-	4,400	6,700	8,100	1.4	<1.0	<1.0	<1.0	<10	-	-

TABLE 2
Groundwater Analytical Results -- Organics
Mariner Square, Alameda, California

Well	Date	TRPH	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	VOCs	Vinyl Chloride
MW-7	09/27/94	-	<250	1,800	<250	<0.3	<0.3	<0.3	<0.3	-	-	<1.0
	06/28/96	-	560	490 (2,3)	<200	0.6	<1.0	<1.0	2.7	-	-	<0.5
	10/31/96	-	200	420	<200	1.1	<1.0	<1.0	<2.0	<10	-	<1.0
	09/30/97	-	750	190 (2)	<200	8.1	5.3	<1.0	6.9	<10	-	<0.8
	12/12/97	-	420	<50	<200	7.9	<0.5	<0.5	5	<5	-	<2
	02/18/98	-	650	<50	<200	9.5	0.6	<0.5	6	16	-	<2
	05/08/98	-	710	<50	<200	3.4	4.8	0.8	7	34	0.9 (5)	<2
	06/24/99	-	620	<250	<100	89	16	16	64	<5.0	-	<0.50
	09/09/99	-	420	400	<100	1.1	0.85	1.1	3.4	<5.0	-	-
	11/24/99	Sampling discontinued										
MW-8	09/27/94	-	<50	320	<50	<0.3	<0.3	<0.3	<0.3	-	-	-
	06/28/96	-	<100	58 (2)	<200	<0.5	<1.0	<1.0	<2.0	-	-	<0.5
	10/31/96	-	<100	120	<200	<0.5	<1.0	<1.0	<2.0	<10	-	<1.0
	09/30/97	-	110	70 (2)	<200	4.2	<1.0	3.4	16	<10	-	<0.8
	12/12/97	-	<50	<50	<200	<0.5	<0.5	<0.5	<2.0	15	-	<2
	02/18/98	-	<50	<50	<200	0.9	<0.5	0.8	3	<5	-	<2
	05/08/98	-	<50	<50	<200	<0.5	<0.5	<0.5	<2.0	<5	-	<2
	06/24/99	-	350	<50	<100	64	11	12	45	<5.0	-	<0.50
	09/09/99	-	56	120	130	<0.50	<0.50	<0.50	<0.50	<5.0	-	-
	11/24/99	-	-	-	<250	-	-	-	-	-	-	-
	03/15/00	Not Sampled										
MW-9	09/26/94	-	<500	2,200	<500	<0.3	<0.3	<0.3	<0.3	-	-	<1.0
	06/28/96	-	390	550 (2,3)	<200	5.2	<1.0	<1.0	<2.0	-	-	<0.5
	10/31/96	-	300	590	720	5.9	<1.0	<1.0	<2.0	<10	-	<1.0
	09/30/97	-	150	460 (2)	<200	0.6	<1.0	<1.0	2.7	<10	-	<0.8
	12/12/97	-	180	<50	<200	<0.5	<0.5	<0.5	<2.0	<5	-	<2

TABLE 2
Groundwater Analytical Results -- Organics
Mariner Square, Alameda, California

Well	Date	TRPH	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	VOCs	Vinyl Chloride
MW-9	02/18/98	-	100	<50	<200	<0.5	0.5	<0.5	<2.0	6	-	<2
continued	05/08/98	-	70	130	<200	<0.5	<0.5	<0.5	<2.0	16	-	<2
	06/24/99	-	380	140	<100	51	10	11	39	<5.0	-	<0.50
	09/09/99	-	140	340	<100	<0.50	<0.50	<0.50	1.0	<5.0	-	-
	11/24/99						Not Sampled					
	03/15/00	-	<50	650 (4)	900 (4)	<0.5	<0.5	<0.5	<0.5	<5.0	-	-
MW-10	08/10/99	-	1,300	3,000 (4)	8,200 (4)	9.2	1.9	12	46	<5.0	-	NA
	09/09/99	-	890	8,600	210,000	5.2	<0.50	13	37	<5.0	-	-
	11/24/1999	-	1,700	<500	17,000	6.7	0.67	9.5	28	<5.0	-	-
	03/15/00	-	1,200	<500	14,000	3.5	<1.0	2.2	18	<10	-	-

All results reported in parts per billion

TRPH Total Recoverable Petroleum Hydrocarbons
TPHg Total Petroleum Hydrocarbons as gasoline
THPd Total Petroleum Hydrocarbons as diesel

< Analyte not detected at or above stated detection limit
TPHmo Total Petroleum Hydrocarbons as motor oil
VOCs Volatile Organic Compounds
MTBE Methyl Tert-Butyl Ether

(1) Water sample also analyzed for Freon 113 by EPA Method 8010A. Results were below the detection limit of 1.0 ppb.
(2) Qualitative identification is uncertain because the material present does not match laboratory standards.
(3) Quantitation uncertain due to matrix interferences
(4) Results within quantitation range; chromatographic pattern not typical of fuel
(5) Tetrochloroethene reported by lab on vinyl chloride sample unedited run.

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Earth Systems Consultants
[illegible] Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Plechke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640
Sample Time: 2:00 PM

Lab Sample ID: 19640-007 **Client Sample ID:** MW-10

Sample Date: 3/15/00 **Matrix:** Liquid

Analyte	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
[illegible]	ND		2	5	10	µg/L		3/21/00	WGC4000321	EPA 8020
[illegible]	3.5		2	0.5	1	µg/L		3/21/00	WGC4000321	EPA 8020
[illegible]	ND		2	0.5	1	µg/L		3/21/00	WGC4000321	EPA 8020
[illegible]	2.2		2	0.5	1	µg/L		3/21/00	WGC4000321	EPA 8020
[illegible]	18		2	0.5	1	µg/L		3/21/00	WGC4000321	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	112	65 - 135

Analyte	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
[illegible]	[illegible]		2	50	100	µg/L		3/21/00	WGC4000321	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	116	65 - 135

[illegible]

DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Earth Systems Consultants
47853 Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-007 **Client Sample ID:** MW-10

Sample Time: 2:00 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		10	50	500	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	115	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	14000		10	250	2500	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	115	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2346

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Earth Systems Consultants
47853 Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-005 **Client Sample ID:** MW-6A
Sample Time: 2:20 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	6700		5	50	250	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	107	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	8100		5	250	1250	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	107	65 - 135

Order ID: 19640 **Lab Sample ID:** 19640-006 **Client Sample ID:** MW-9
Sample Time: 1:30 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	650	x	1	50	50	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	105	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	900	x	1	250	250	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	105	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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CA ELAP# 2346

Earth Systems Consultants
47853 Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-003 **Client Sample ID:** MW-4
Sample Time: 12:55 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	300	x	1	50	50	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	121	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	390	x	1	250	250	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	121	65 - 135

Order ID: 19640 **Lab Sample ID:** 19640-004 **Client Sample ID:** MW-5
Sample Time: 2:45 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	6600	x	5	50	250	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	120	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
PH as Motor Oil	4200		5	250	1250	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	120	65 - 135

= Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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CA ELAP# 2346

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Earth Systems Consultants
47853 Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-001 **Client Sample ID:** MW-2
Sample Time: 12:20 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	110	x	1	50	50	µg/L	3/21/00	3/21/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	115	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	ND		1	250	250	µg/L	3/21/00	3/21/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	115	65 - 135

Order ID: 19640 **Lab Sample ID:** 19640-002 **Client Sample ID:** MW-3
Sample Time: 11:50 AM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	350	x	1	50	50	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	114	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Motor Oil	440	x	1	250	250	µg/L	3/21/00	3/22/00	DW000315	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	114	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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WELL MONITORING DATA SHEET

Project #: 000315C1	Client: EARTH SYSTEMS
Sampler: Jeff	Start Date: 3/15/00
Well I.D.: MW10	Well Diameter: 2 3 4 6 8 ___
Total Well Depth: 10.13	Depth to Water: 4.12
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
Disposable Bailer
Middleburg
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other: ~~Teflon tube~~

Sampling Method:

Bailer
Disposable Bailer
Extraction Port
Dedicated Tubing
(Other): Teflon tube

.24 (Gals.) X	3	=	.7	Gals.
1 Case Volume	Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1350	67.1	6.8	1099	7200	.25	
1355	65.5	6.8	1157	7200	.50	
1400	65.5	6.8	1134	7200	.75	
				DTW=	4.33	

Did well dewater? Yes (No) Gallons actually evacuated: 1.2

Sampling Time: 1410 Sampling Date: 3/15/00

Sample I.D.: MW10 Laboratory: ENTECH

Analyzed for: (TPH-G) ~~BTEX~~ ~~MTBE~~ (TPH-D) Other: Motor Oil

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/l	Post-purge:	mg/l
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

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WELL MONITORING DATA SHEET

Project #: 000315C1	Client: EARTH SYSTEMS
Sampler: Jeff	Start Date: 3/15/00
Well I.D.: MW9	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth: 13.23	Depth to Water: 3.07
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- (Disposable Bailer)
- Middleburg
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other ____

Sampling Method:

- Bailer
- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: ____

1 Case Volume	Specified Volumes	Calculated Volume
6.6 (Gals.) X	3	= 19.8 / 4.4 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1310	61.3	6.8	728	7200 / 45	6	
1315	60.4	6.7	~~782~~	~~3.0~~	12	
1320	60.5	6.8	781	~~5.0~~	20	
					DTW = 3.26	

Did well dewater? Yes (No) Gallons actually evacuated: 5.0

Sampling Time: 1330 Sampling Date: 3/15/00

Sample I.D.: MW9 Laboratory: Entech

Analyzed for: ~~TPH-G BTEX MTBE TPH-D~~ Other: MOTOR OIL

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

DO (if req'd):	Pre-purge:	mg/l	Post-purge:	mg/l
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

6

WELL MONITORING DATA SHEET

Project #: 000315C1	Client: EARTH SYSTEMS
Sampler: Jeff	Start Date: 3/15/00
Well I.D.: MW6A	Well Diameter: ~~2~~ 3 4 6 8 1
Total Well Depth: 10.19	Depth to Water: 3.61
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
~~Disposable Bailer~~
Middleburg
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other Tephlon Tube

Sampling Method:

Bailer
Disposable Bailer
Extraction Port
Dedicated Tubing
Other: Tephlon Tube

1 Case Volume	(Gals.) X	Specified Volumes	=	Calculated Volume	Gals.
.26		3		.8	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1410	63.4	7.2	420	7200	.3	
1415	63.3	7.0	487	7200	.6	
1420	63.1	7.0	413	7200	1.0	

Did well dewater? Yes (No) Gallons actually evacuated: 1.5

Sampling Time: 1420 Sampling Date: 3/15/00

Sample I.D.: MW6A Laboratory: ENTECH

Analyzed for: (TPH-G) BTEX MTBE (TPH-D) Other: Motor Oil

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd): Pre-purge: mg/L Post-purge: mg/L

ORP (if req'd): Pre-purge: mV Post-purge: mV

WELL MONITORING DATA SHEET

Project #: 000315C1	Client: EARTH SYSTEMS
Sampler: Jeff	Start Date: 3/15/00
Well I.D.: MW5	Well Diameter: (2) 3 ~~4~~ 6 8 ___
Total Well Depth: 11.75	Depth to Water: 3.03
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- (Disposable Bailer)
- Middleburg
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other ___

Sampling Method: Bailer

- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: ___

1.4 (Gals.) X 3 = 4.2 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1430	60.9	6.8	977	7200	1.5	
1435	59.3	6.7	1020	11	3.0	
1440	58.5	6.8	1048	7200	4.5	

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Time: 1445 Sampling Date: 3/15/00

Sample I.D.: MW5 Laboratory: ENTECH

Analyzed for: ~~TPH-G~~ BTEX MTBE (TPH-D) Other: MOTOR OIL

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

2 V

WELL MONITORING DATA SHEET

Project #: 000315C1	Client: EARTH SYSTEMS
Sampler: Jeff	Start Date: 3/15/00
Well I.D.: MW4	Well Diameter: 2 3 4 6 8 ___
Total Well Depth: 11.66	Depth to Water: 2.50
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- (Disposable Bailer)
- Middleburg
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other ____

Sampling Method: Bailer

- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: ____

1.5 (Gals.) X 3 = 4.4 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1240	60.1	6.7	719	>200	1.5	
1245	59.7	6.8	765	>200	3.0	
1250	59.7	6.8	853	>200	4.5	
1255	59.6	6.8	818	>200	5.3	
				DTW = 2.63		

Did well dewater? Yes No ← Gallons actually evacuated: 5.0

Sampling Time: ~~1250~~ 1255 Sampling Date: 3/15/00

Sample I.D.: MW4 Laboratory: EUTECH

Analyzed for: TPH-G BTEX MTBE (TPH-D) Other: Motor oil

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 000315C1	Client: EARTH SYSTEMS
Sampler: Jeff	Start Date: 3/15/00
Well I.D.: MW3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 9.95	Depth to Water: 3.00
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
Disposable Bailer
Middleburg
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other_____

Sampling Method:

Bailer
Disposable Bailer
Extraction Port
Dedicated Tubing
Other: _____

1.1 (Gals.) X 3 = 3.3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1140	64.0	6.3	2305	>200	1.1	
1145	62.1	6.6	2332	"	2.2	
1150	62.0	6.7	2350	"	3.3	
				DTW=	3.05	

Did well dewater? Yes (No) Gallons actually evacuated: 3.5

Sampling Time: 1150 Sampling Date: 3/15/00

Sample I.D.: MW3 Laboratory: ENTECH

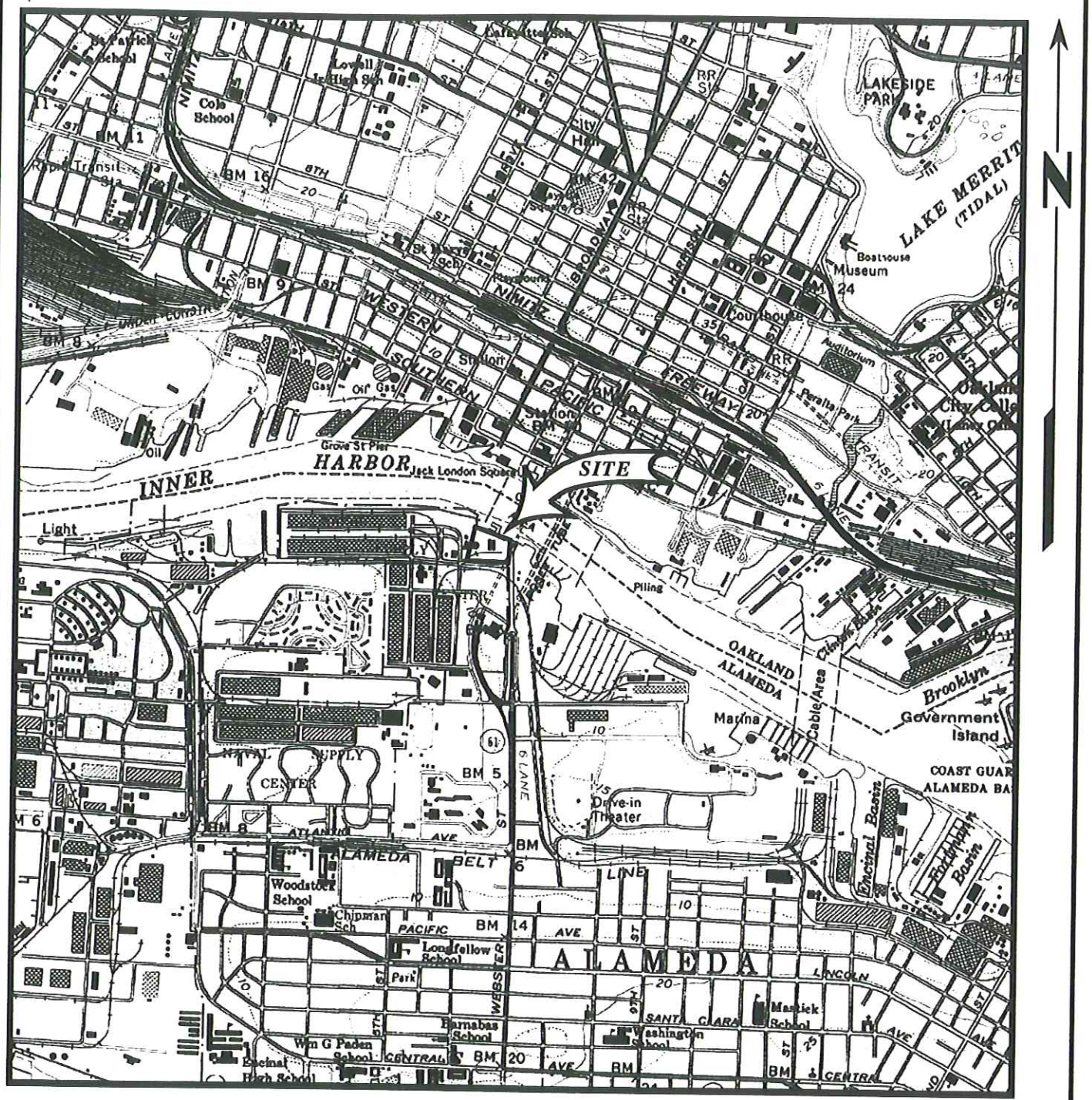
Analyzed for: ~~TPH-G BTEX MTBE TPH-D~~ Other: DEG ATTROL

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

File No. NFE-4392-01
April 2000



Approximate Scale 1: 24,000

1 0 1 Mile

1 0 1 Kilometer

Base: U.S.G.S. 7.5 minute Oakland West Quadrangle (1980)
Printed from TOPO!™ ©1997 Wildflower Productions (415) 558-8700, www.topo.com

Earth Systems Consultants **NorthernCalifornia**	Mariner Square Alameda, California	**SITE LOCATION** **Figure 1**

Entech Analytical Labs, Inc.

CA ELAP# 2346

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Earth Systems Consultants
47853 Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-001 **Client Sample ID:** MW-2

Sample Time: 12:20 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
MTBE	ND		1	5	5	µg/L		3/20/00	WGC4000320	EPA 8020
Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	100	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	91		1	50	50	µg/L		3/20/00	WGC4000320	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	102	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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Earth Systems Consultants
47853 Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-002 **Client Sample ID:** MW-3

Sample Time: 11:50 AM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
MTBE	ND		1	5	5	µg/L		3/20/00	WGC4000320	EPA 8020
Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	105	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	88		1	50	50	µg/L		3/20/00	WGC4000320	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	114	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

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Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-003 **Client Sample ID:** MW-4

Sample Time: 12:55 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
MTBE	6.7		1	5	5	µg/L		3/20/00	WGC4000320	EPA 8020
Benzene	1.2		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	93	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	82		1	50	50	µg/L		3/20/00	WGC4000320	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	95	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

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CA ELAP# 2346

Earth Systems Consultants
47853 Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-004 **Client Sample ID:** MW-5

Sample Time: 2:45 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
MTBE	ND		1	5	5	µg/L		3/21/00	WGC4000321	EPA 8020
Benzene	4.7		1	0.5	0.5	µg/L		3/21/00	WGC4000321	EPA 8020
Toluene	6.9		1	0.5	0.5	µg/L		3/21/00	WGC4000321	EPA 8020
Ethyl Benzene	3.5		1	0.5	0.5	µg/L		3/21/00	WGC4000321	EPA 8020
Xylenes, Total	2.4		1	0.5	0.5	µg/L		3/21/00	WGC4000321	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	66	65 - 135

Comment:

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1400		1	50	50	µg/L		3/21/00	WGC4000321	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	27	65 - 135

Comment: Surrogate recovery out of control limits due to matrix interference

F = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

nalysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

chelle L. Anderson, Laboratory Director

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CA ELAP# 2346

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47853 Warm Springs Blvd.
Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-005 **Client Sample ID:** MW-6A

Sample Time: 2:20 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
MTBE	ND		2	5	10	µg/L		3/21/00	WGC4000321	EPA 8020
Benzene	1.4		2	0.5	1	µg/L		3/21/00	WGC4000321	EPA 8020
Toluene	ND		2	0.5	1	µg/L		3/21/00	WGC4000321	EPA 8020
Ethyl Benzene	ND		2	0.5	1	µg/L		3/21/00	WGC4000321	EPA 8020
Xylenes, Total	ND		2	0.5	1	µg/L		3/21/00	WGC4000321	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	114	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	4400	x	2	50	100	µg/L		3/21/00	WGC4000321	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	87	65 - 135

Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

ysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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CA ELAP# 2346

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Earth Systems Consultants
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Fremont, CA 94539-7400
Attn: Gary Pischke

Date: 3/24/00
Date Received: 3/16/00
Project Name: BTS#000315C1
Project Number:
P.O. Number:
Sampled By: Blaine Tech

Certified Analytical Report

Order ID: 19640 **Lab Sample ID:** 19640-006 **Client Sample ID:** MW-9

Sample Time: 1:30 PM **Sample Date:** 3/15/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
MTBE	ND		1	5	5	µg/L		3/20/00	WGC4000320	EPA 8020
Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L		3/20/00	WGC4000320	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	106	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L		3/20/00	WGC4000320	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	111	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 11/30/92
DATE REPORTED: 12/07/92

LABORATORY NUMBER: 109373

CLIENT: SUBSURFACE CONSULTANTS

PROJECT ID: 554.007

LOCATION: 2900 MAIN ST. ALAMEDA

RESULTS: SEE ATTACHED

Reviewed by

Reviewed by

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109373
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 554.007
LOCATION: 2900 MAIN ST. ALAMEDA

DATE SAMPLED: 11/25/92
DATE RECEIVED: 11/30/92
DATE EXTRACTED: 12/03/92
DATE ANALYZED: 12/05/92
DATE REPORTED: 12/07/92

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT* (ug/L)
109373-1	MW-1	**	3,900	50
109373-2	MW-2	**	5,600	50
109373-3	MW-3	**	14,000	50

**Kerosene range not reported. Quantitated as diesel range.

* Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	1
RECOVERY, %	98

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109373
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 554.007
LOCATION: ALAMEDA GATEWAY

DATE SAMPLED: 11/25/92
DATE RECEIVED: 11/30/92
DATE ANALYZED: 12/03/92
DATE REPORTED: 12/07/92

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT * (ug/L)
109373-1	MW-1	ND	ND	ND	ND	0.5
109373-2	MW-2	ND	ND	ND	ND	0.5

ND = Not detected at or above reporting limit.

* Reporting Limit applies to all analytes.

QA/QC SUMMARY

RPD, %	5
RECOVERY, %	100

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109373
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 554.007
LOCATION: ALAMEDA GATEWAY

DATE SAMPLED: 11/25/92
DATE RECEIVED: 11/30/92
DATE ANALYZED: 12/03/92
DATE REPORTED: 12/07/92

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
109373-3	MW-3	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	7
RECOVERY, %	105

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109373
CLIENT: SUBSURFACE CONSULTANTS
PROJECT: 554.007
LOCATION: ALAMEDA GATEWAY

DATE SAMPLED: 11/25/92
DATE RECEIVED: 11/30/92
DATE ANALYZED: 12/01/92
DATE REPORTED: 12/07/92

ANALYSIS: LEAD
ANALYSIS METHOD: EPA 7421

LAB ID	SAMPLE ID	RESULT	UNITS	REPORTING LIMIT
109373-1	MW-1	ND	ug/L	3
109373-2	MW-2	ND	ug/L	3
109373-3	MW-3	ND	ug/L	3

ND = Not detected at or above reporting limit.

QA/QC SUMMARY:

RPD, %	3
RECOVERY, %	89

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 109373

Project Name: Alameda Gateway
Project Number: 554.007

Report Date: 07 December 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
109373-001	MW-1	Water	25-NOV-92	30-NOV-92	02-DEC-92	ND	mg/L	5	TR	7605
109373-002	MW-2	Water	25-NOV-92	30-NOV-92	02-DEC-92	12.	mg/L	5	TR	7605
109373-003	MW-3	Water	25-NOV-92	30-NOV-92	02-DEC-92	ND	mg/L	5	TR	7605

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

QC Batch Report

Client: Subsurface Consultants
Project Name: Alameda Gateway
Project Number: 554.007

Laboratory Login Number: 109373
Report Date: 07 December 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 7605**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	5	mg/L	SMWW 17:5520BF	02-DEC-92

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	87%	SMWW 17:5520BF	02-DEC-92
BSD	86%	SMWW 17:5520BF	02-DEC-92

		Control Limits
Average Spike Recovery	86%	80% - 120%
Relative Percent Difference	1.2%	< 20%

CHAIN OF CUSTODY FORM

PAGE _____ OF _____

PROJECT NAME: 2900 Main St. Alameda

JOB NUMBER: 554.007 LAB: Curtis + Tompkins

PROJECT CONTACT: Sean Carson TURNAROUND: Normal

SAMPLED BY: E. CHANG REQUESTED BY: Sean Carson

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE			METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TVH/BTXE	TEH	O+G SM5520F	Lead EPA 7421	BTXE
109373-1	MW-1	X						4	2	1				X			X		11	25	92	1150		X	X	X	X	X
-2	MW-2	X						4	2	1				X			X		11	25	92	1400			X	X	X	
-3	MW-3	X						4	2	1				X			X		11	25	92	1600			X	X	X	

COMMENTS & NOTES:

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
[signature]	11/28/12	[signature]	
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
RELEASED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME
		[signature]	12/10 11/30/12

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607